AUTHOR INDEX, VOLUME 14

Adamek, S.: see Woodhams, R. T.
Adhikari, M. and Pal, M.: Activity Measurements of Bivalent Cations Singly and in Mixture with Resin Membrane Electrodes in Aquo-Organic Media, 2675
Adicoff, A. and Lepie, A. H.: Effect of Tensile Strain on the Use of the WLF Equation, 953
Agrawal, J. P. and Sourirajan, S.: High Flux Freeze-Dried Cellulose Acetate Reverse Osmosis Membranes as Microporous Barriers in Gas Permeation and Separation, 1303
Ajroldi, G., Garbuglio, C., and Ragazzini, M.: Some Rheological Properties of Molten Polytetrafluoroethylene, 79
Akers, F. I. and Wightman, J. P.: Absorption of CO_2 by Phenolic Resin, 241
Alaminov, H. and Andonova, N.: Thermal Decomposition of Phenol Formaldehyde Resins Modified with Cyanuric Acid, 1083
Ali, M. S. and Sheldon, R. P.: Structural Changes in Glassy Polymers, 2619
Alince, B., Kuniak, L., and Robertson, A. A.: The Sorption of Poly(vinyl Acetate) on Cellulose. I. The Nature and Extent of the Sorbed Layer, 1577
—— and Robertson, A. A.: Sorption of Poly(vinyl Acetate) on Cellulose. II. The Role of the Porous Structure, 2581
Allan, G. G. and Neogi, A. N.: Copolymer Characterization by Surface Tension, 999
Almin, K. E. and Swenson, H. A.: A Two-Capillary Viscosity Method Monitored by an Analytical Balance, 453
Altmann, V.: see Maláč, J.
Anderson, D. G., Netzel, D. A., and Tessari, D. J.: The Synthesis and Characterization of Monomeric Etherified Methylolated Melamines Using Gell Permeation Chromatography and Proton Magnetic Resonance Spectroscopy, 3021
Anderson, G. P.: see Bennett, S. J.
Andonova, N.: see Alaminov, H.
Anthony, R. G.: see Teaney, F. G.
Aoki, K.: see Ishibashi, T.
Aonuma, H.: see Matsuda, H.
Arai, K.: see Ogiwara, Y.
Arisawa, K. and Porter, R. S.: The Degradation of Polystyrene during Extrusion, 879
Armeniades, C. D., Baer, E., and Rieke, J. K.: Cryogenic Relaxations of Polystyrene and Poly(fluorinated Styrenes), 2635
Armond, V. J. and Atkinson, J. R.: Nitric Acid Attack on Polypropylene. Weight and Density Changes and Blister Formation During the Initial Stages, 1833
Arnold, K. R. and Meier, D. J.: A Rheological Characterization of SBS Block Copolymers, 427
Arthur, J. C., Jr.: see Byrne, G. A.
——: see Harris, J. A.
——: see Nakamura, Y.
——: see Singh, S.
Atkinson, J. R.: see Armond, V. J.
Auerbach, I.: Decomposition Kinetics of a Phenolic-Carbon Composite. I. Resin Available for Volatilization, 747
Baer, E.: see Armeniades, C. D.
Baijal, M. D. and Sturm, C. L.: Melt Flow Rate-Intrinsic Viscosity Correlation for Polypropylene, 1651
Bair, H. E.: see Salovey, R.
Baker, R. W. and Strathmann, H.: Ultrafiltration of Macromolecular Solutions with High-Flux Membranes, 1197
Bardman, D. R.: see Sperling, L. H.
Bareš, J.: A Method of Estimating Resistance to Abrasion, 1473
Barker, R. H.: see Hendrix, J. E.
Barlow, A. and Young, M.: Procedure for Calculating the Crystallinity of Ethylene-Vinyl Acetate Copolymers and Low-Density Polyethylene as a Function of Temperature, 1731
Bartenev, G. M., Zelenev, Y. V., and Borodin, I. P.: Thermodynamic Description of Relaxation Phenomena in Polymers, 393
Becker, K.: see Boyett, R. H.
Beevers, R. B.: Dependence of Association in Polyacrylonitrile Solutions on the Molecular Volume of the Nonsolvent, 505
Bell, J. P.: Mechanical Properties of a Glassy Epoxide Polymer: Effect of Molecular Weight Between Crosslinks, 1901
——: see Dumbleton, J. H.
Bell, V. L.: Preparation of Imide-Pyrrone Copolymers, 2385
Bennett, S. J., Anderson, G. P., and Williams, M. L.: The Time Dependence of Surface Energy in Cohesive Fracture, 735
Bert, M.: see Guyot, A.
Betrabet, S. M., Muller, L. L., Tripp, V. W., and Rollins, M. L.: Physical and Fine Structure Properties of

Cotton Fibers Swollen with Trimethylbenzylammonium Hydroxide, 2905
Beyer, G. H.: see Waldman, N.
Biesenberger, J. A. and Ouano, A.: Extraparticle Diffusional Effects in Gel Permeation Chromatography. I. Theory, 471
——: see Ouano, A.
Bishop, D. P. and Smith, D. A.: Combined Pyrolysis and Radiochemical Gas Chromatography for Studying the Thermal Degradation of Epoxy Resins and Polyimides. I. The Degradation of Epoxy Resins in Nitrogen Between 400°C and 700°C, 205
—— and Smith, D. A.: Combined Pyrolysis and Radiochemical Gas Chromatography for Studying the Thermal Degradation of Epoxide Resins and Polyimides. II. Degradation of Polyimides, 345
Black, P. E. and Worsfold, D. J.: The Preparation of Some Block Copolymers, 1671
Blair, D. E.: The Design and Application of an Automatic Endless-Belt Polymer Fractionator, 2469
Bobalek, E. G.: see Campbell, G. A.
Bolton, E. F.: see Kroll, H.
Boonstra, B. B.: see Lambert, D. H.
Boor, J., Jr.: Oligomer of *o*-Xylene as a Heat Stabilizer for Isotactic Polypropylene, 2553
Borodin, I. P.: see Bartenev, G. M.
Bostic, J. E., Jr.: see Hendrix, J. E.
Boudakian, M. M.: see Raes, M. C.
Boyett, R. H. and Becker, K.: LET Effects on the Chemical Resistance of Irradiated Polymers, 1654
Brannan, M. A. F.: see Rowland, S. P.
Brazinsky, I., Cosway, H. F., Valle, C. F., Jr., Jones, R. C., and Story, V.: A Theoretical Study of Liquid-Film Spread Heights in the Calendering of Newtonian and Power Law Fluids, 2771
Brenner, W.: see Goswami, J. C.
Brown, C. W. and Longbottom, H. M.: The Manganic Hydroxide–Hydrazine System as an Initiator of Vinyl Polymerization. II. The Emulsion Polymerization of Methyl Methacrylate, 2927
Broutman, L. J., Krishnakumar, S. M., and Mallick, P. K.: Combined Stress Failure Tests for a Glassy Plastic, 1477
Burleigh, J. E.: see Uraneck, C. A.
Burr, R. C.: see Fanta, G. F.
Byrne, G. A. and Arthur, J. C., Jr.: Kinetic Analysis of Radiation-Initiated Copolymerization Reactions of Water-Soluble Vinyl Monomers with Cellulose, 3093
Caldwell, J. R.: see Jackson, W. J., Jr.
Campbell, D. R.: Radiochemical Determination of Unsaturation in Cyclic Oxide Polymers in Presence of Antioxidants, 847
Campbell, D. S.: Structural Characterization of Vulcanizates. XI. Network-Bound Accelerator Residues, 1409
Campbell, G. A., Elton, E. F., and Bobalek, E. G.: The Kinetics of Thin Film Polyesterification, 1025
Cancio, L. V.: see Shida, M.
Canepa, G.: see Munari, S.
Canestaro, M. J.: see Levy, M. F.
Carenza, M.: see Palma, G.
Carleton, P. S.: see Farrissey, W. J., Jr.
Carlson, G. L.: see Hollahan, J. R.
Catsiff, E. H., Hoffman, R. F., and Kowalewski, R. T.: Predicting Joint Sealant Performance of Elastomers by Computer Simulation. I. Justification of Method, 1143
——: Hoffman, R. F., and Kowalewski, R. T.: Predicting Joint Sealant Performance of Elastomers by Computer Simulation. II. Results in Simple Extension and Compression, 1159
Chang, E. Y. C.: Polymerization of Propylene Oxide Diethylberyllium-Water, 3137
Chiba, A.: see Watanabe, H.
Chong, J. S. and Vezzi, D. M.: Unsteady Flow of Viscoelastic Fluids, 17
—— and Franks, R. G. E.: Time-Dependent Flow of Quasi-Linear Viscoelastic Fluids, 1639
Chü, N. J.: The Conformation of the Anhydrocellobiose Units in Cellulose I and II, 2261
Cigna, G.: Dynamic Mechanical Properties, Structure, and Composition of Impact Polystyrene, 1781
Clark, J. K. and Scott, R. A.: Characterization of Sulfur-Cured Styrene-Butadiene Copolymer Rubbers and Their Polybutadiene Blends, 1
Clay, P. G., Hall, G. R., Rahman, M. K., and Rashid, M.: The γ-Radiolysis of Zeocarb 225 Cation-Exchange Resins, 2167
Colborne, R. S.: Solubility Characteristic of Polyvinyl Chloride, 127
Colomb, H. O., Jr., Trecker, D. J., and Osterholtz, F. D.: Radiation-Convertible Polymers from Norbornenyl Derivatives. Crosslinking with Ionizing Radiation, 1659
Consaga, J. P.: Functionality Determination of Hydroxyl-Terminated Butadiene Prepolymers, 2157
Cosway, H. F.: see Brazinsky, I.
Coughlin, R. W.: see Siegel, R. D.
Cox, W. C., Crawford, D. J., and Peill, P. L. D.: The Photo-Oxidation of Poly(Vinyl Chloride) Investigated by a Stress Relaxation Technique, 611
Craver, J. K.: A Classification of Hydrogen-Bonding Solvents by Sonic Velocity Measurements, 1755
Crawford, D. J.: see Cox, W. C.
Crum, J. L.: see Hilyard, N. C.
Cuddihy, E. F.: see Moacanin, J.

Daigle, D. J. and Donaldson, D. J.: Formaldehyde: The Key to Polymerization Between THPOH and NH_4OH, 248
Darby, J. R., Touchette, N. W., and Sears, J. K.: Antioxidant Effects in PVC Plasticized with DIDA, 53
Dawson, B., Hopkins, S., and Sewell, P. R.: The Analysis of Polyurethane Foams. I. Identification of Components, 35
——, Hopkins, S., and Sewell, P. R.: The Analysis of Polyurethane Foams. II. Chemical Constitution of the Polymer, 45
Dearlove, T. J.: A Comparison of Some Imidazole Catalysts as Epoxy Curing Agents, 1615
DeVries, K. L., Simonson, E. R., and Williams, M. L.: A Micro-Macro Correlation of Ozone-Induced Fracture in Rubber, 3049
DiBenedetto, A. T. and Trachte, K. L.: The Brittle Fracture of Amorphous Thermoplastic Polymers, 2249
——: see Geiszler, W. A.
Dimitrov, M.: see Kriston, P.
Doi, K.: see Nakamura, Y.
Doll, W. W. and Lando, J. B.: The Radiation-Initiated Solution Polymerization of Vinylidene Fluoride, 1767
Donaldson, D. J.: see Daigle, D. J.
Drexler, L. H.: A Rheological Study of the Low Molecular Weight Butyl Polymer, 1857
Dudek, T. J.: Dynamic Young's and Shear Moduli of Graphite Fiber-Reinforced High-Temperature Matrix Resins, 1939
Dumbleton, J. H. and Bell, J. P.: The Collapse Process in Acrylic Fibers, 2402
—— and Bell, J. P.: Sonic Modulus in a Porous System, 2412
—— and Murayama, T.: Effect of Fiber Nonuniformity on the Dynamic Mechanical Behavior of Poly(ethylene Terephthalate), 2921
Dunlop, A. N. and Williams, H. L.: The Dynamic Viscosity of Polypropylene Melt, 2753
Dunn, P. and Ennis, B. C.: Thermal Analysis of Compounded Poly(Vinyl Chloride), 355
—— and Ennis, B. C.: Thermal Analysis of Polyacrylonitrile. Part I. The Melting of Polyacrylonitrile, 1795
—— and Sansom, F.: The Stress Cracking of Polyamides by Metal Salts. Part IV. Metal Nitrates, 1799
——, Oldfield, D., and Stacewicz, R. H.: Weathering of Plasticized Poly(Vinyl Chloride), 2107
Earlie, E. D.: Creep and Stress Relaxation of Natural Rubber Vulcanizates. Part I Effect of Crosslink Density on the Rate of Creep in Different Vulcanizing Systems, 1127
Ebra-Lima, O. M.: see Paul, D. R.
Eisenberg, A.: see Moacanin, J.
Elliott, J. H., Horowitz, K. H., and Hoodock, T.: A One-Point Intrinsic Viscosity Method for Polyethylene and Polypropylene, 2947
Elton, E. F.: see Campbell, G. A.
Ennis, B. C.: see Dunn, P.
Evans, G. M. and Jeffries, R.: The Swelling of Cotton in Cadoxen, Ethylenediamine, and Cuprammonium Hydroxide, 633
—— and Jeffries, R.: The Effect of Crosslinking on the Swelling of Cotton in Solutions of Sodium Hydroxide and Cadoxen, 655
Fan, L. T.: see Osakada, K.
Fanta, G. F., Burr, R. C., Russell, C. R., and Rist, C. E.: Graft Copolymers of Starch and Poly(2-hydroxy-3-methacryloyloxypropyltrimethylammonium chloride). Preparation and Testing as Flocculating Agents, 2601
Farrissey, W. J., Jr., Rose, J. S., and Carleton, P. S.: Preparation of a Polyimide Foam, 1093
Fels, M. and Huang, R. Y. M.: Diffusion Coefficients of Liquids in Polymer Membranes by a Desorption Method, 523
—— and Huang, R. Y. M.: The Effect of Styrene Grafting on the Diffusion and Solubility of Organic Liquids in Polyethylene, 537
Feughelman, M.: see Lynch, L. J.
Fielding-Russell, G. S. and Smith, G. H.: Characterization of Two Polypentadienes of Differing Tacticity by Physical Methods, 777
Fitchmun, D. R., Newman, S., and Wiggle, R.: Electroplating on Crystalline Polypropylene. I. Compression Molding and Adhesion, 2441
——, Newman, S., and Wiggle, R.: Electroplating on Crystalline Polypropylene. II. Injection Molding and Adhesion, 2457
Franks, R. G. E.: see Chong, J. S.
Freeston, W. D., Jr.: see Skelton, J.
French, D. M., Strecker, R. A. H., and Tompa, A. S.: The Maximum Extent of Reaction in Gelled Systems, 599
Frick, J. G., Jr., Kullman, R. M. H., and Reinhardt, R. M.: Crosslinking of Cyanoethylated Cotton, 1911
Friedel, H.: see Klein, J.
Fruh, S. M., Rodriguez, F., and Manning, A. J.: Predicting Nonlinear Viscosity and Elasticity from Zero-Shear Parameters in the Pao-Rouse Model, 3105
Furukawa, J.: see Nishioka, A.
Galanti, A. V. and Sperling, L. H.: Morphology and Structure of Silica Agglomerates in Silica-Reinforced Silicone Rubber, 2785
Garbuglio, C.: see Ajroldi, G.
Geiszler, W. A., Koutsky, J. A., and DiBenedetto, A. T.: Amorphous State Transitions in Butadiene-Acrylonitrile Copolymers, 89

George, H. F.: see Sperling, L. H.
Georgieff, K. K.: Relative Inhibitory Effect of Various Compounds on the Rate of Polymerization of Vinyl Acetate. III. Effect of Compounds of Various Classes, 1907
Gerhart, F. J.: see Kesting, R. E.
Gibson, U. H. and Quick, Q.: The Average Molecular Structure of Base-Catalyzed Low-Mole Adducts of Propylene Oxide to Glycerin, 1059
Gieniewski, C.: see Moore, R. S.
Gilath, A., Ronel, S. H., Shmueli, M., and Kohn, D. H.: Copolymerization of Styrene. IV. Copolymerization with Esters of Benzylidenecyanoacetic Acid, 1491
Gippin, M.: Influence of Diphenyl Ether and Water on the Polymerization of Isoprene with Triisobutylaluminium and Titanium Tetrachloride, 1807
Gordon, R. J.: On the Explanation and Correlation of Turbulent Drag Reduction in Dilute Macromolecular Solutions, 2097
Goring, D. A. I.: see Yean, W. Q.
Goswami, J. C., Brenner, W., Rugg, B., and Liu, W.: Amine-Catalyzed Polymer Encapsulation of Cotton Fibers by Vapor Phase Application of Formaldehyde, 2707
Gramain, Ph. and Libeyre, R.: Automatic Recording Capillary Viscosimeter with Dilution, 383
Gray, T. F., Jr.: see Jackson, W. J., Jr.
Griskey, R. G.: see Waldman, N.
Grover, S. S.: see Varma, I. K.
Guyot, A., Roncaniere, P., et Bert, M.: Degradation du Polychlorure de Vinyle Preparé en Présence de Composés Organoaluminiques, 193
——: see Pham, Q. T.
Haas, T. W. and Maxwell, B.: Melting of Linear Polyethylene Crystallized From the Melt Under Shear Stress, 2407
Hadley, D. W.: Comments on "Investigation of Creep Phenomena in Polyethylene and Polypropylene," 1385
Hall, G. R.: see Clay, P. G.
Hamielec, A. E.: An Analytical Solution to Tung's Axial Dispersion Equation. Applications in Gel Permeation Chromatography, 1519
Hamner, W. F.: see Randall, J. C.
——: see Taylor, H. A.
Han, C. D.: On the Rheological Interpretation of Die Swell in Molten Polymers, 1775
—— and Segal, L.: A Study of Fiber Extrusion in Wet Spinning. I. Experimental Determination of Elongational Viscosity, 2973
—— and Segal, L.: A Study of Fiber Extrusion in Wet Spinning. II. Effects of Spinning Conditions on Fiber Formation, 2999
Hara, K., Maeda, T., Takagi, M., and Oya, S.: Adhesion of Polyethylene to Metals. I. Effect of Annealing on Joint Strength, 2127
Harris, J. A. and Arthur, J. C., Jr.: Radiation-Initiated Graft Copolymerization of Binary Monomer Mixtures Containing Acrylonitrile with Cotton Cellulose, 3113
Harris, P. W.: see McGregor, R.
Harvey, E. D. and Hybart, F. J.: Rates of Crystallization of Copolyamides. II. Random Copolymers of Nylons 66 and 6, 2133
Harwood, J. A. C., Payne, A. R., and Whittaker, R. E.: An Investigation into the High Temperature Strength and Reinforcement of Natural Rubber, 2183
Hasegawa, H.: see Hirata, S.
Hata, T.: see Ohara, K.
Hayashi, S.: see Ogiwara, Y.
Hayduk, W. and Kelly, B. D.: An Improved Block Osmometer Used to Determine the Molecular Weight Distribution of Commercial Poly(vinyl Chloride), 2279
Hendrix, J. E., Bostic, J. E., Jr., Olson, E. S., and Barker, R. H.: Pyrolysis and Combustion of Cellulose. I. Effects of Triphenyl Phosphate in the Presence of Nitrogenous Bases, 1701
Hergenrother, P. M. and Levine, H. H.: Polyquinoxalines. I. Synthesis and Preliminary Mechanical Properties as Laminating and Adhesive Resins, 1037
Higuchi, M. and Imai, Y.: Rheological Interpretation of Heat Generation Associated with Fatigue of Polycarbonate, 2377
Hilyard, N. C. and Crum, J. L.: Slow Crack Growth in Cellulose Film, 1373
Hinojosa, O.: see Nakamura, Y.
——: see Singh, S.
Hiorns, B. M.: see Oliver, D. R.
Hirata, S., Hasegawa, H., and Kishimoto, A.: Effect of Mixing on Melt Flow Properties of High-Density Polyethylene, 2025
Hoffman, A. S., Modell, M., and Pan, P.: Polyacrylic Desalination Membranes. II. Reverse Osmosis Performance, 285
——: see Jadwin, T. A.
Hoffman, R. F.: see Catsiff, E. H.
Hollahan, J. R. and Carlson, G. L.: Hydroxylation of Polymethylsiloxane Surfaces by Oxidizing Plasmas, 2499
Hoodock, T.: see Elliott, J. H.
Hopkins, S.: see Dawson, B.
Horowitz, K. H.: see Elliott, J. H.
Hoshino, S.: see Uejo, H.
Huang, R. Y. M. and Jarvis, N. R.: Separation of Liquid Mixtures by Using Polymer Membranes. II. Permeation of Aqueous Alcohol Solutions Through Cellophane and Poly(vinyl Alcohol), 2341
——: see Fels, M.
——: see Kanitz, P. J. F.

Huelck, V.: see Sperling, L. H.
Humphrey, J. S., Jr.: A Boat-Casting Technique for the Preparation of Very Thin Plastic Films Suitable for Optical Studies, 2399
Hybart, F. J.: see Harvey, E. D.
Ibe, E. C.: The Solubility Parameter Concept Applied to Disperse Dyeing of Polymers, 837
Iijima, T.: see Shibusawa, T.
Imai, Y.: Direct Fiber Formation and Fiber Properties of Aromatic Polyoxadiazoles, 225
——: see Higuchi, M.
Ishibashi, T., Aoki, K., and Ishii, T.: Studies on Melt Spinning of Nylon 6. I. Cooling and Deformation Behavior and Orientation of Nylon 6 Threadline, 1597
Ishii, T.: see Ishibashi, T.
Ito, I., Okajima, S., and Shibata, F.: Studies on Sublimation of Disperse Dye out of Dyed Polymers. I. Rate of Sublimation and Amorphous Transition Points of Poly(ethylene Terephthalate), 551
Ito, K. and Matsuda, T.: Discussion of Treatments for the Kinetics of Radical Polymerization with Primary Radical Termination, 311
Ito, T.: see Toyama, M.
Izu, M. and O'Driscoll, K. F.: A Nomograph for Copolymer Composition and Sequence Distribution, 1515
Jackson, K. F.: see Kesting, R. E.
Jackson, W. J., Jr., Gray, T. F., Jr., and Caldwell, J. R.: Polyester Hot-Melt Adhesives. I. Factors Affecting Adhesion to Epoxy Resin Coatings, 685
Jadrnicek, B. R. and Stivala, S. S.: Kinetics of Autoxidation of Atactic Polypropylene by Infrared Spectroscopy, 2537
Jadwin, T. A., Hoffman, A. S., and Vieth, W. R.: Crosslinked Poly(hydroxyethyl Methacrylate) Membranes for Desalination by Reverse Osmosis, 1339
Jarvis, N. R.: see Huang, R. Y. M.
Jeffries, R.: see Evans, G. M.
Jones, R. C.: see Brazinsky, I.
Joshi, V. S.: A Nonlinear Maxwell Model to Explain the Initial Fall in Dynamic Modulus at Constant Static Strain, 2657
Kadim, A.: see Ram, A.
Kageyama, E.: see Nakamura, Y.
Kale, K. M.: see Roy-Chowdhury, P.
Kalfoglou, N. K. and Williams, H. L.: Temperature and Microstructure Dependence of the Rheo-Optical Properties of Polybutadienes, 2481
Kamada, H.: see Yoshida, K.
Kanitz, P. J. F. and Huang, R. Y. M.: The Permeation of Gases Through Modified Polymer Films. II. Gas Permeability and Separation Characteristics of Gamma Ray-Irradiated Polyethylene, 2739
Kaplit, M. J.: see Miller, M. L.
Kato, Y.: see Okajima, S.
Kayama, K.: see Okajima, S.
Kelly, B. D.: see Hayduk, W.
Kesting, R. E., Jackson, K. F., Klusmann, E. B., and Gerhart, F. J.: The Introduction of Elastomeric Behavior into Polycarboranylenesiloxane SiB-1 Polymers from the Closo-carborane $C_2B_5H_7$, 2525
Kingry, G. W.: see White, J. L.
Kirkpatrick, M. L.: see Sperling, L. H.
Kishimoto, A.: see Hirata, S.
Klein, J. and Friedel, H.: Polymer Fractionation by Repeated Extraction, 1927
Klusmann, E. B.: see Kesting, R. E.
Knorr, R. S. and O'Driscoll, K. F.: Multiple Steady States, Viscosity, and High Conversion in Continuous Free-Radical Polymerization, 2683
Kobayashi, H.: see Masamoto, J.
——: see Watanabe, H.
Kocskina, A.: see Kriston, P.
Kohn, D. H.: see Gilath, A.
Kotani, T.: see Nishioka, A.
Koutsky, J. A.: see Geiszler, W. A.
Kowalewski, R. T.: see Catsiff, E. H.
Kramer, E. J.: Thermal Runaway of Nylon 6–10 During Drawing Under Constant Load, 2825
Krishnakumar, S. M.: see Broutman, L. J.
Kriston, P., Kocskina, A., and Dimitrov, M.: The Reaction of Chlorinated Polyethylenes and Amines, 2763
Kroll, H. and Bolton, E. F.: The Synthesis of Selenium Condensation Polymers Using Bis(2-hydroxyethyl) Selenide and Bis(2-amino-ethyl) Selenide, 2319
Kronick, P. L.: see Reucroft, P. J.
Kubota, H. and Ogiwara, Y.: Graft Copolymerization onto Cellulose by Ceric Ion Initiator System: Effects of Kind of Acid and Irradiation with Ultraviolet Light, 2611
—— and Ogiwara, Y.: Graft Copolymerization to Cellulose in the Presence of Hydrogen Peroxide with Ultraviolet Irradiation, 2879
——: see Ogiwara, Y.
Kuczynski, G. C., Neuville, B., and Toner, H. P.: Study of Sintering of Poly(methyl Methacrylate), 2069
Kudo, K.: see Nakamura, Y.
Kullman, R. M. H.: see Frick, J. G., Jr.
Kumanotani, J.: see Yoshida, K.
Kuniak, L.: see Alince, B.
Kunst, B. and Sourirajan, S.: Effect of Casting Conditions on the Performance of Porous Cellulose Acetate Membranes in Reverse Osmosis, 723
—— and Sourirajan, S.: Evaporation Rate and Equilibrium Phase Separation Data in Relation to Casting Conditions and Performance of Porous Cellulose Acetate Reverse Osmosis Membranes, 1983

—— and Sourirajan, S.: Development and Performance of Some Porous Cellulose Acetate Membranes for Reverse Osmosis Desalination, 2559
Kuroiwa, S.: see Matsuda, H.
Lambert, D. H. and Boonstra, B. B.: Abrasion Resistance of Prestressed and Stressed Rubber Vulcanizates, 11
Landel, R. F.: see Moacanin, J.
Lando, J. B.: see Doll, W. W.
Lawson, D. D.: see Moacanin, J.
Lee, P. I. and Longbottom, H. M.: The Dependence of the Rate of Emulsion Polymerization of Methyl Methacrylate on the Soap Concentration, 1377
Lee, T. C. P. and Wragg, R. T.: The Thermal Stabilization of Polyethylene Sulfide, 115
Leisegang, E. C., Stephen, A. M., and Paterson-Jones, J. C.: The Thermal Degradation in Vacuo of an Amine-Cured Epoxide Resin, 1961
Lepie, A. H.: see Adicoff, A.
Levine, H. H.: see Hergenrother, P. M.
Levy, M. F. and Canestaro, M. J.: Development of Chlorendic Anhydride-Cured Epoxy Systems with Wide Variations in the Resin: Anhydride Ratio, 2671
Lewis, T. B. and Nielsen, L. E.: Dynamic Mechanical Properties of Particulate-Filled Composites, 1449
Libeyre, R.: see Gramain, Ph.
Liepins, R.: A Method for Determining Boron in Cotton Fabric, 2595
Little, R. C. and Wiegard, M.: Drag Reduction and Structural Turbulence in Flowing Polyox Solutions, 409
Liu, W.: see Goswami, J. C.
Longbottom, H. M.: see Lee, P. I.
——: see Brown, C. W.
Lynch, L. J. and Feughelman, M.: The Role of Water in the Segmental Mobility of Hydrophilic Fibers, 1394
Machin, D. and Rogers, C. E.: An Environmental Instrument for Measuring Creep and Stress Relaxation in Polymers, 2833
—— and Rogers, C. E.: On the Calculation of Tensile Stress Relaxation Modulus for Varying Stress and Strain, 3139
MacSporran, W.: see Oliver, D. R.
Maeda, T.: see Hara, K.
Maláč, J., Altmann, V., and Zelinger, J.: Properties of PVC. II. Properties of PVC Compounds with Solvents, 161
Mallick, P. K.: see Broutman, L. J.
Mameniskis, W. A.: Determination of Poly(oxypropylene Diol) Present in Poly(oxypropylene Triol) by Thin-Layer Chromatography, 1189
Manning, A. J.: see Fruh, S. M.
Martin, J. G.: see Miller, M. L.
Marvel, C. S.: see Szita, J.
Masamoto, J., Sasaguri, K., Ohizumi, C., Yamaguchi, K., and Kobayashi, H.: A New Synthetic Fiber Made of Nylon 3, 667
Matsuda, H., Aonuma, H., and Kuroiwa, S.: Concentration Dependence of the Diffusion Coefficient in Polymer Solution and Molecular Weight Distribution Determined by the Diffusion Method, 335
Matsuda, T.: see Ito, K.
Maxwell, B.: see Haas, T. W.
McGregor, R. and Harris, P. W.: The Sorption of Ions by Polyamides, 513
McKinnon, A. J.: The Formation in Wool of Copolymers of Butadiene with Acrylonitrile and Methyl Acrylate by Iron-Salt-Hydrogen Peroxide Initiation, 3033
Mehltretter, C. L.: see Roth, W. B.
Meier, D. J.: see Arnold, K. R.
Meinecke, E. A. and Schwaber, D. M.: Energy Absorption in Polymeric Foams. I. Predication of Impact Behavior from Instron Data for Foams with Rate-Independent Modulus, 2239
Melley, R. F. and Stuckey, J. E.: A Determination of Crosslink Density from Compression Modulus Data, 2327
Miller, M. L., Postal, R. H., Sawyer, P. N., Martin, J. G., and Kaplit, M. J.: Conditioning Polytetrafluoroethylene Surfaces for Use in Vascular Prostheses, 257
Mitchell, S. J., Pickering, R. S., and Thomas, C. R.: The Effect of Phenol/Formaldehyde Ratio on the Char Yield from Phenolic Resins, 175
Mitomo, N.: see Ogiwara, Y.
Mizutani, Y. and Nishimura, M.: Studies on Ion-Exchanging Membranes. XXXII. Heterogeneity in Ion-Exchange Membranes, 1847
Mlejnek, O.: see Šimúnková, D.
Moacanin, J., Eisenberg, A., Cuddihy, E. F., Lawson, D. D., Moser, B. G., and Landel, R. F.: On the Presence of Crystallinity in Hydrogenated Polybutadienes, 2416
Modell, M.: see Hoffman, A. S.
Moore, R. S. and Gieniewski, C.: Crazing and the Stress Dependence of Creep in Two Glassy Polymers: Polystyrene and a Poly(styrene-Acrylonitrile) Copolymer, 2889
Moriguchi, H.: see Toyama, M.
Morris, C. E.: Adhesive Bonding of Polyethylene, 2171
Moser, B. G.: see Moacanin, J.
Most, C. F., Jr.: Some Filler Effects on Diffusion in Silicone Rubber, 1019
Mullen, P. A. and Searle, N. Z.: The Ultraviolet Activation Spectrum of Polycarbonate, 765
Muller, L. L.: see Betrabet, S. M.
Mullins, D. H.: see Raciszewski, Z.
Munari, S., Tealdo, G. C., Canepa, G., and Rossi, C.: Molecular Weights of Grafted Polystyrene onto γ-Preirradiated Cellulose Diacetate, 807
Murayama, T.: see Dumbleton, J. H.
Nabar, G. M. and Shenai, V. A.: Studies in Chemically Modified Cellu-

loses. III. Estimation of Free Carboxylic Acid Groups in Cellulose, 1215
Nagano, Y.: see Ohzawa, Y.
Nakajima, N.: Examination of a Master Curve Method of Characterizing Steady-State Flow Polymers, 2643
——: Is There Any Universal Expression for Representing the Steady-State Flow Curves of Polymers?, 2661
Nakamura, Y., Hinojosa, O., and Arthur, J. C., Jr. Cellulose Graft Copolymers. II. Graft Copolymerization of Ethyl Acrylate with γ-Irradiated Cellulose from Acetone-Water Systems, 789
—— Arthur, J. C., Jr., Negishi, M., Doi, K., Kageyama, E., and Kudo, K.: Rheological Properties of Elastomers Based on Cellulose Fibers, 929
Nakayama, K.: see Okajima, S.
Narkis, M. and Tobolsky, A. V.: Heat Stability of Chemically Crosslinked Polyethylene, 65
Negishi, M.: see Nakamura, Y.
Neogi, A. N.: see Allan, G. G.
Netzel, D. A.: see Anderson, D. G.
Neuville, B.: see Kuczynski, G. C.
Newman, S.: see Fitchum, D. R.
Nielsen, L. E.: see Lewis, T. B.
Nishimura, M.: see Mizutani, Y.
Nishioka, A., Furukawa, J., Yamashita, S., and Kotani, T.: Stress-Birefringence Study of Styrene-Butadiene Multiblock Copolymer, 799
—— Furukawa, J., Yamashita, S., and Kotani, T.: The Stress Birefringence of Vulcanizates of Polyisoprene-Polyethylene Blends, 1183
Nisizawa, M.: Environmental Stress Relaxation Studies of Polymers: Effect of Temperature on Polyethylene-Xylene and Polyethylene-Toluene Systems, 1381
——: Environmental Stress Relaxation Studies of Polymers: Effect of Alcohols on Polyethylene, 2065
Octocka, E. P. and Sharpe, L. H.: Effects of Aluminum Ionomer Surface Layers on Polymer Properties, 2569
O'Driscoll, K. F.: see Knorr, R. S.
——: see Izu, M.
Ogawa, T.: see Shaw, R. A.
Ogiwara, Y., Kubota, H., Hayashi, S., and Mitomo, N.: Temperature Dependency of Bound Water of Cellulose Studied by a High-Resolution NMR Spectrometer, 303
—— and Kubota, H.: Graft Copolymerization to Cellulose. Effect of Sodium Thiosulfate on Hydrogen Peroxide Initiator System, 817
——, Kubota, H., and Arai, K.: Composition of Methyl Methacrylate-Grafted Cellulose, 1049
——: see Kubota, H.
Ogura, K. and Sobue, H.: Changes in Morphology with Milling of the Commercial Microcrystalline Cellulose, 1390
Ohara, K. and Hata, T.: Light Emission Due to Peeling of Polymer Films from Various Substrates, 2079
Ohishi, F.: A New Photoelastic Method for Evaluating Durability of Plastics, 2225
Ohizumi, C.: see Masamoto, J.
Ohzawa, Y. and Nagano, Y.: Studies on Dry Spinning. II. Numerical Solutions for Some Polymer-Solvent Systems based on the Assumption that Drying is Controlled by Boundary-Layer Mass Transfer, 1879
Okajima, S., Nakayama, K., Kayama, K., and Kato, Y.: Dichroism of Poly-(ethylene Terephthalate)-Disperse Dye System, 1069
——, Sato, N., and Tasaka, M.: Studies on Sublimation of Disperse Dye Out of Dyed Polymers. II. Rate of Sublimation and Amorphous Transition of Polypropylene, 1563
——: see Ito, I.
Oldfield, D.: see Dunn, P.
Oliver, D. R., MacSporran, W., and Hiorns, B. M.: A Comparison of Inlet- and Exit-Region Flow of Viscoelastic Fluids in Capillary Tubes, 1277
Olson, E. S.: see Hendrix, J. E.
O'Reilly, J. M.: see Prest, W. M., Jr.
Osakada, K. and Fan, L. T.: Computation of Near-Optimal Control Policies for Free-Radicals Polymerization Reactors, 3065
Osterholtz, F. D.: see Colomb, H. O., Jr.
Ouano, A. and Biesenberger, J. A.: Extraparticle Diffusional Effects in Gel Permeation Chromatography. II. Experimental Results, 483
——: see Biesenberger, J. A.
Owens, D. K.: Friction of Polymer Films. III. Migration of Lubricants, 185
——: Some Thermodynamic Aspects of Polymer Adhesion, 1725
Oya, S.: see Hara, K.
Pal, M.: see Adhikari, M.
Palma, G. and Carenza, M.: Degradation of Poly(vinyl Chloride). I. Kinetics of Thermal and Radiation-Induced Dehydrochlorination Reactions at Low Temperatures, 1737
Pan, P.: see Hoffman, A. S.
Paradis, R. A.: see Stallings, J. P.
Parker, J. A.: see Poshkus, A. C.
Paterson-Jones, J. C.: see Leisegang, E. C.
Paul, D. R. and Ebra-Lima, O. M.: Pressure-Induced Diffusion of Organic Liquids Through Highly Swollen Polymer Membranes, 2201
Payne, A. R.: see Harwood, J. A. C.
Peill, P. L. D.: see Cox, W. C.
Pham, Q. T., Rocaniere, P., et Guyot, A.: Etude par Résonance Magnétique Nucléaire des Polychlorures de Vinyle Polymérisés par les Systemès Titanate de Butyle-Alcoyles-Aluminium, 1291
Pickering, R. S.: see Mitchell, S. J.

Porter, R. S.: see Arisawa, K.
——: see Prest, W. M., Jr.
——: see Southern, J. H.
Poshkus, A. C. and Parker, J. A.: Studies on Nitroaniline-Sulfuric Acid Compositions: Aphrogenic Pyrostats, 2049
Postal, R. H.: see Miller, M. L.
Prest, W. M., Jr., Porter, R. S., and O'Reilly, J. M.: Non-Newtonian Flow and the Steady-State Shear Compliance, 2697
Prosser, R. A.: The Adsorption and Absorption of Water Vapor by Polyethylene Terephthalate, 989
Quick, Q.: see Gibson, U. H.
Raciszewski, Z. and Mullins, D. H.: Ultraviolet Absorbers. The Protective Ability of Aromatic Nitro Compounds in Plasticized Poly(vinyl Chloride), 967
Rado, R.: see Šimúnková, D.
Raes, M. C., Boudakian, M. M., and Urs, S. V.: Polyurethanes with Long Fluorinated Side Chains, 699
Ragazzini, M.: see Ajroldi, G.
Rahman, M. K.: see Clay, P. G.
Ram, A. and Kadim, A.: Shear Degradation of Polymer Solutions, 2145
Ramiah, M. V.: Thermogravimetric and Differential Thermal Analysis of Cellulose Hemicellulose, and Lignin, 1323
Randall, J. C., Hamner, W. F., and Taylor, H. A.: Molecular Structure of Chain-Extended Polymeric Diols, 421
Rashid, M.: see Clay, P. G.
Rathke, P. P.: Determination of Isopropyl Peroxydicarbonate Decomposition Rate Constant Using EPR, 329
Reinhardt, R. M.: see Frick, J. G., Jr.
Remaly, L. S. and Schultz, J. M.: Time-Dependent Effect of Spherulite Size on the Tensile Behavior of Polypropylene, 1871
Reucroft, P. J., Scott, H., Kronick, P. L., and Serafin, F. L.: The Effect of High Energy Radiation on the Electrical Characteristics of Pyrrone Polymers, 1361
Revillon, A. and St. Pierre, L. E.: Comparative Gel Permeation Chromatography Calibration Techniques in Oxidative Coupling Polymerization, 373
Rieke, J. K.: see Armeniades, C. D.
Rinde, J. A.: Poisson's Ratio for Rigid Plastic Foams, 1913
Rist, C. E.: see Fanta, G. F.
Roberts, A. F.: The Kinetic Behavior of Intermediate Compounds During the Pyrolysis of Cellulose, 244
Robertson, A. A.: see Alince, B.
Rocaniere, P.: see Guyot, A.
——: see Pham, Q. T.
Rodriguez, F.: see Fruh, S. M.
——: see Van Brederode, R. A.
Rogers, C. E.: see Machin, D.
Rogers, M. G.: Some Studies on the Swelling Behavior of Polyethylene, 1679
——: Solution Viscosity-Molecular Weight Relationship for Polystyrene, 2015
Rollins, M. L.: see Betrabet, S. M.
Ronel, S. H.: see Gilath, A.
Rose, J. S.: see Farrissey, W. J., Jr.
Rosengren, Kj.: see Yasuda, H.
Rossi, C.: see Munari, S.
Rostogi, A. K. and St. Pierre, L. E.: Copolymerization of Ethylene Oxide and Propylene Oxide by Anhydrous Potassium Hydroxide, 1179
Roth, W. B. and Mehltretter, C. L.: Films from Mixtures of Viscose and Alkali High-Amylose Corn Starch, 1387
Rowland, S. P. and Brannan, M. A. F.: The Reaction of Activated Vinyl Compounds with Cotton Cellulose via Internal Catalysis, 441
—— and Brannan, M. A. F.: Internal Catalysis of Reactions of Activated Vinyl Compounds Via Tertiary Amino Substituents in Cotton Cellulose, 2333
Roy-Chowdhury, P. and Kale, K. M.: The Adiabatic Compressibility of Poly(acrylic Acid) and Polyacrylamide in Aqueous Solution, 2937
Rugg, B.: see Goswami, J. C.
Rusch, K. C.: Load-Compression Behavior of Brittle Foams, 1263
——: Energy-Absorbing Characteristics of Foamed Polymers, 1433
Russell, C. R.: see Fanta, G. F.
St. Pierre, L. E.: see Revillon, A.
——: see Rostogi, A. K.
Sakamoto, M., Takeda, J., Yamada, Y., and Tonami, H.: Reversible Crosslinking in Cellulose. II. Mono- and Bifunctional Reactions of Bis-β-isocyanatoethyl Disulfide with Cotton, 865
Salovey, R. and Bair, H. E.: Degradation of Poly(vinyl Chloride), 713
Sansom, F.: see Dunn, P.
Sasaguri, K.: see Masamoto, J.
Satake, K.: Effects of Mixing States on Physical Properties of Vulcanizates of Polybutadiene Rubber-General Purpose Polystyrene Resin Blend, 1007
Sato, N.: see Okajima, S.
Sawyer, P. N.: see Miller, M. L.
Schoppee, M. M.: see Skelton, J.
Schrager, M. and Ward, A. L.: Multiple Peak Resolution in Gel Permeation Chromatography, 1235
Schultz, J. M.: see Remaly, L. S.
Schwaber, D. M.: see Meinecke, E. A.
Scott, H.: see Reucroft, P. J.
Scott, R. A.: see Clark, J. K.
Searle, N. Z.: see Mullen, P. A.
Sears, J. K.: see Darby, J. R.
Segal, L.: see Han, C. D.
Serafin, F. L.: see Reucroft, P. J.
Seward, R. J.: The Observation of Crazes in High-Impact Polystyrene by Electron Microscopy, 852
Sewell, P. R.: see Dawson, B.
Sharpe, L. H.: see Octocka, E. P.

Shaw, R. A. and Ogawa, T.: Inorganic Polymers. IV. Reactions of Poly(P-phenylphosphonic Imide). The Replacement Polymerization of Poly(P-phenylphosphonic Imide) with Piperazine, 1547
Sheldon, R. P.: see Ali, M. S.
Shenai, V. A.: see Nabar, G. M.
Shibata, F.: see Ito, I.
Shibusawa, T. and Iijima, T.: The Duffusion of Nonionic Penetrants in Polyamide, 1553
Shida, M. and Cancio, L. V.: The Effect of Heterogeneity on the Flow Behavior on High Density Polyethylene, 3083
Shmueli, M.: see Gilath, A.
Short, J. N.: see Uraneck, C. A.
Siegel, R. D. and Coughlin, R. W.: Enhancing the Permeation Characteristics of Polyethylene by Membrane Irradiation in the Fully Swollen State, 2431
—— and Coughlin, R. W.: Errors in Diffusivity as Deduced from Permeation Experiments Using Time-Lag Technique, 3145
Simonson, E. R.: see DeVries, K. L.
Šimúnková, D., Rado, R., and Mlejnek, O.: Mechanism and Kinetics of Polyethylene Crosslinking by α,α'-Bis-(*tert*-butylperoxy)-*p*-diisopropylbenzene, 1825
Singh, S., Hinojosa, O., and Arthur, J. C., Jr.: ESR Study of Intramolecular Energy Transfer in the Radiolysis of Cellulose Furoates, 1591
Skelton, J., Freeston, W. D., Jr., and Schoppee, M. M.: The Effect of Internal Temperature Rise on the Tensile Behavior of Polymeric Materials at Subambient Temperatures, 2797
Smith, B. F.: see Stevens, C. V.
Smith, D. A.: see Bishop, D. P.
Smith, G. H.: see Fielding-Russell, G. S.
Sobue, H.: see Ogura, K.
Sourirajan, S.: see Agrawal, J. P.
——: see Kunst, B.
Southern, J. H. and Porter, R. S.: The Properties of Polyethylene Crystallized Under the Orientation and Pressure Effects of a Pressure Capillary Viscometer, 2305
Sperling, L. H., Taylor, D. W., Kirkpatrick, M. L., George, H. F., and Bardman, D. R.: Glass-Rubber Transition Behavior and Compatibility of Polymer Pairs: Poly(ethyl Acrylate) and Poly(methyl Methacrylate), 73
——, George, H. F., Huelck, V., and Thomas, D. A.: Viscoelastic Behavior of Interpenetrating Polymer Networks: Poly(ethyl Acrylate)–Poly(methyl Methacrylate), 2815
——: see Galanti, A. V.
Stacewicz, R. H.: see Dunn, P.
Stallings, J. P. and Paradis, R. A.: Solventless Processing of Modified Poly(vinyl Fluoride) and its Properties, 461
Stampa, G. B.: The Anionic Dispersion Polymerization of α-Methylstyrene, 1227
Stannett, V.: see Williams, J. L.
Stephen, A. M.: see Leisegang, E. C.
Stevens, C. V. and Smith, B. F.: Crosslinking Cotton Cellulose with Ethyleneurea Derivatives Having Hydrogen-bonding Capabilities. II. Accessibility Determinations, 1691
Stivala, S. S.: see Jadrnicek, B. R.
Story, V.: see Brazinsky, I.
Strathmann, H.: see Baker, R. W.
Strecker, R. A. H.: see French, D. M.
Stuckey, J. E.: see Melley, R. F.
Sturm, C. L.: see Baijal, M. D.
Sufčák, M.: Effects of Monomer Impurities on the Emulsion Polymerization of Chloroprene and Properties of Polychloroprene. II. Effect of Monovinylacetylene, 1103
Sumi, K.: see Tsuchiya, Y.
Swenson, H. A.: see Almin, K. E.
Szita, J. and Marvel, C. S.: Sulfoalkylation of a Polybenzimidazole with Propanesultone, 2019
Szöcs, F.: Decay of Free Radicals in Irradiated PMMA at High Pressures Studied by ESR, 2629
Takagi, M.: see Hara, K.
Takeda, J.: see Sakamoto, M.
Tasaka, M.: see Okajima, S.
Taylor, D. W.: see Sperling, L. H.
Taylor, H. A., Tincher, W. C., and Hamner, W. F.: Photodegradation of Nylon 66. I. Phototendering by TiO_2, 141
——: see Randall, J. C.
Tealdo, G. C.: see Munari, S.
Teaney, F. G. and Anthony, R. G.: Effect of Multiple Feeds on a Termination-Free Polymerization in Continuous Stirred Tank Reactors, 147
Tessari, D. J.: see Anderson, D. G.
Thomas, C. R.: see Mitchell, S. J.
Thomas, D. A.: see Sperling, L. H.
Thorne, D. J.: Distribution of Internal Flaws in Acrylic Fibers, 103
Tincher, W. C.: see Taylor, H. A.
Tobolsky, A.: see Zaganiaris, E.
Tobolsky, A. V.: see Narkis, M.
Tompa, A. S.: see French, D. M.
Tonami, H.: see Sakamoto, M.
Toner, H. P.: see Kuczynski, G. C.
Tordella, J. P.: Effects of Thermal History on the Peel Strength of Linear Polyethylene, 1627
Touchette, N. W.: see Darby, J. R.
Toyama, M., Ito, T., and Moriguchi, H.: Studies on Tack of Pressure-Sensitive Adhesive Tapes, 2039
——, Ito, T., and Moriguchi, H.: Studies on Tack of Pressure-Sensitive Adhesive Tapes: On the Surface Contamination by Adhesive Mass After Peeling, 2295
Trachte, K. L.: see DiBenedetto, A. T.
Trecker, D. J.: see Colomb, H. O., Jr.
Tripp, V. W.: see Betrabet, S. M.

Trott, G. F.: Orientation on Elongation at Rupture of Two Injection-Molded Isotatic Polypropylenes, 2421
Tsuboi, A.: see Yoda, K.
Tsuchiya, Y. and Sumi, K.: Thermal Decomposition Products of Cellulose, 2003
Tuchida, T.: see Watanabe, H.
Tunnicliffe, M. E.: The Determination of Unsaturation in Ethylene Propylene Terpolymers and Butyl Rubber with Pyridinium Bromide Perbromide, 827
Uejo, H. and Hoshino, S.: Structure of Biaxially Oriented Polypropylene Film, 317
Uraneck, C. A. and Burleigh, J. E.: Molecular Weight Distributions of Polystyrene and of Butadiene-Styrene Copolymers Prepared in Emulsion Systems, 267
—— and Short, J. N.: Solution-Polymerized Rubbers with Superior Breakdown Properties, 1421
Urs, S. V.: see Raes, M. C.
Valle, C. F., Jr.: see Brazinsky, I.
Van Brederode, R. A. and Rodriguez, F.: Gelation of Poly(ethylene Oxide) Solutions by Gamma Radiation: Effects of Molecular Weight and Irradiation Conditions, 979
Varma, I. K. and Grover, S. S.: Thermal Analysis of Poly(vinyl Chloride) Fractions, 2965
Verbrugge, C. J.: Mechanism of Alkali Thickening of Acid-Containing Emulsion Polymers. I. Examination of Latexes by Means of Viscosity, 897
——: Mechanism of Alkali Thickening of Acid-Containing Emulsion Polymers. II. Examination of Latexes with the Light Microscope, 911
Ver Strate, G.: Remarks on Copolymer Sequence Distributions, 2509
Vezzi, D. M.: see Chong, J. S.
Vieth, W. R.: see Jadwin, T. A.
Vladimiroff, T.: The Use of Fast, Finite Fourier Transforms for the Solution of Tung's Equation, 1397
Wada, M.: see Yoda, K.
Wagner, M. G.: Mill Behavior of Elastomers: Scale-Up Criteria, 757
Waldman, M. H.: see Wirick, M. G.
Waldman, N., Beyer, G. H., and Griskey, R. G.: Dilatometric Study of the Melting Point of Three High-Pressure Crystallized Samples of Marlex Polyethylene, 681
——, Beyer, G. H., and Griskey, R G.: A Dilatometer for Measuring Compressibilities of Polymers in Their Melting Range, 1507
Ward, A. L.: see Schrager, M.
Watanabe, H., Chiba, A., Tuchida, T., and Kobayashi, Y.: Graft Polymerization of 1,1-Dihydroperfluorobutyl Acrylate onto Cellulose Fabric, 2731
Wegemer, N. J.: Infrared Determination of the Composition of Copolymers and Terpolymers of Propene and Butene-1 with and without Octene-1, 573
Wessling, R. A.: The Solubility of Poly(vinylidene Chloride), 1531
——: The Sloubility of Poly(vinylidene Chloride) in Solvent Mixtures, 2263
White, J. L. and Kingry, G. W.: Theoretical Analysis and Critique of the Chromatographic Separation of Macromolecules Using Porous Adsorbents, 2723
Whittaker, R. E.: see Harwood, J. A. C.
Wiegard, M.: see Little, R. C.
Wiggle, R: see Fitchum, D. R.
Williams, H. L.: see Dunlop, A. N.
——: see Kalfoglou, N. K.
Williams, J. L. and Stannett, V.: The Diffusion of Gases and Water Vapor through Grafted Polyoxymethylene, 1949
Williams, M. L.: The Fracture Threshold for an Adhesive Interlayer, 1121
——: see Bennett, S. J.
——: see DeVries, K. L.
Wirick, M. G. and Waldman, M. H.: Some Solution Properties of Fractionated Water-Soluble Hydroxypropylcellulose, 579
Woodhams, R. T. and Adamek, S.: Aminothiol Polyalkylene Sulfide Oligomers, 1253
Worsfold, D. J.: see Black, P. E.
Wragg, R. T.: see Lee, T. C. P.
Wightman, J. P.: see Akers, F. I.
Yamada, Y.: see Sakamoto, M.
Yamadera, R.: see Yoda, K.
Yamaguchi, K.: see Masamoto, J.
Yamashita, S.: see Nishioka, A.
Yasuda, H. and Rosengren, Kj.: Isobaric Measurement of Gas Permeability of Polymers, 2839
Yean, W. Q. and Goring, D. A. I.: The Molecular Weight of a Sodium Lignosulfonate in Dimethylsulfoxide and in Aqueous 0.1 *M* Sodium Chlorine, 1115
Yoda, K., Tsuboi A., Wada, M., and Yamadera, R.: Network Formation in Poly(ethylene Terephthalate) by Thermooxidative Degradation, 2357
Yoshida, K., Kamada, H., and Kumanotani, J.: Estimation of Crosslinking of Diallyl Phthalate Prepolymer. An Investigation by Infrared Spectroscopy, 2117
Young, M.: see Barlow, A.
Zaganiaris, E. and Tobolsky, A.: Thermoplastic Elastomers via Radical Polymerization, I., 1997
Zelenev, Y. V.: see Bartenev, G. M.
Zelinger, J.: see Maláč, J.
——: see Zitek, P.
Zeronian, S. H.: Acetylation of Cotton Treated with Sodium Hydroxide, 365
Zitek, P. and Zelinger, J.: Yielding Processes in Glassy Polymers, 1243

SUBJECT INDEX, VOLUME 14

Abrasion resistance, estimation method, 1473
Absorbers, ultraviolet, 967
Acetylation, of cotton treated with sodium hydroxide, 365
Acrylic fibers
  internal flow distribution, 103
  collapse process in, 2402
Adducts, of propylene oxide to glycerin, average molecular structure, 1059
Adhesion
  of polyethylene to metals, 2127
  polymer, thermodynamic aspects of, 1725
Adhesive interlayer, fracture threshold for, 1121
Adhesives, polyester hot-melt, 685
Adhesive tapes
  pressure-sensitive, tack studies, 2039
  pressure-sensitive, tack of, 2295
α-Methylstyrene, anionic dispersion polymerization, 1227
Aminothiol polyalkylene sulfide oligomers, 1253
Anhydrocellobiose units, in cellulose I and II, 2261
Automatic recording capillary viscosimeter, 383
Boron, in cotton fabric, determination of, 2595
Breakdown properties, superior, of solution-polymerized rubbers, 1421
Butadiene-acrylonitrile copolymers, amorphous state transitions in, 89
Butadiene copolymers, formation in wool, 3033
Butadiene prepolymers, hydroxyl-terminated, functionality determination, 2157
Butyl polymer, low molecular weight, rheological study of, 1857
CO_2 absorption, by phenolic resins, 241
Catalysis, internal, in cotton cellulose, 2333
Cations, bivalent, activity measurements, 2675
Cellulose
  copolymerization, graft to, 817
  copolymerization reactions, with vinyl monomers, radiation-initiated, 3093
  cotton, radiation-initiated graft copolymerization with monomer mixtures, 3113
  graft copolymerization to, 2879
  hemicellulose, and lignin, thermal analysis of, 1323
  kinetic behavior of intermediate compounds of, during pyrolysis, 244
  methyl methacrylate-grafted composition, 1049
  microcrystalline, morphology changes, 1390
  pyrolysis and combustion, 1701
  reversible crosslinking in, 865
  sorption of polyvinyl acetate on, 2581
  sorption of poly(vinyl acetate), 1577
  thermal decomposition products, 2003
Cellulose acetate membranes
  casting condition effects on reverse osmosis, 723
  developed for reverse osmosis desalination, 2559
Cellulose fabric, graft polymerization onto, 2731
Cellulose film, slow crack growth in, 1373
Cellulose furoates, radiolysis of, studied by ESR, 1591
Cellulose graft copolymers, 789
Cellulose I and II, anhydrocellobiose units in, 2261
Celluloses, chemically modified, studies in, 1215
Char yield, from phenolic resins, affected by phenol-formaldehyde ratio, 175
Chlorinated polyethylenes and amines, reaction of, 2763
Chloroprene, emulsion polymerization effected by monomer impurities, 1103
Chromatographic separation, of macromolecules using porous adsorbents, 2723
Chromatography, gel permeation, extra-particle diffusion effects in, 471, 483
  gel permeation, calibration techniques in oxidative coupling polymerization, 373
  gel permeation, multiple peak resolution in, 1235
  gel permeation, synthesis and characterization of methalolated melamines, 3021
  gel permeation, Tung's axial dispersion equation applications to, 1519
  study of thermal degradation of epoxy resins and polyimides, 205
  thin-layer, determination of poly(oxypropylene diol) in poly(oxypropylene triol), 1189
Combustion of cellulose, 1701
Compressibility
  adiabatic, of poly(acrylic acid) and polyacrylamide, 2937
  of polymers, measured by Dialometer, 1507
Copolyamides, crystallization rates of, 2133
Copolymer characterization by surface tension, 999
Copolymer composition, nomograph for, 1515

Copolymerization, graft
by ceric ion initiator system onto cellulose, 2611
graft, radiation-initiated, of monomer mixtures with cotton cellulose, 3113
graft, to cellulose, 817, 2879
of ethylene oxide and propylene oxide, 1179
of styrene, 1491
Copolymerization reactions, radiation-initiated, of vinyl monomers with cellulose, 3093
Copolymer sequence distributions, remarks on, 2509
Copolymers
block, preparation, 1671
cellulose graft, 789
graft, of starch and poly(2-1 hydroxy-3-methacryloyloxypropyltrimethylammonium chloride), as flocculating agents, 2601
SBS block, rheological characterization of, 427
Copolymers and terpolymers, composition by infrared determination, 573
Corn starch mixtures, films from, 1387
Cotton
cyanoethylated, crosslinking of, 1911
effect of crosslinking on swelling, 1655
polymer encapsulated, amine-catalyzed, 2707
swelling in cadoxen solutions, 633
treated with sodium hydroxide, acetylation of, 365
Cotton cellulose
crosslinking, 1691
internal catalysis of reactions of vinyl compounds, 2333
reaction of vinyl compounds with, 441
Cotton fabric, determining boron in, 2595
Cotton fibers, swollen, physical and fine structure properties, 2903
Crack growth, slow, in cellulose film, 1373
Crazes, in high-impact polystyrene, 852
Crazing and creep, in two glassy polymers, 2889
Creep, of natural rubber vulcanizates, 1127
Creep and stress relaxation, measured in polymers, 2833
Creep phenomena, in polyethylene and polypropylene, comments on, 1385
Crosslinking
estimation of, in diallyl phthalate prepolymer, 2117
of cyano ethylated cotton, 1911
of polyethylene, mechanisms and kinetics, 1825
reversible, in cellulose, 865
Crosslinking cotton cellulose, 1691
Crosslinking density, determined from compression modulus data, 2327
Cryogenic relaxations of polystyrene, 2635
Crystallinity
calculations procedure for, 1731
in hydrogenated polybutadienes, 2416
Crystallization rates, of copolyamides, 2133
Decomposition, thermal, of phenol formaldehyde, 1083
Decomposition products, thermal, of cellulose, 2003
Decomposition rate constant, of isopropyl peroxydicarbonate, by EPR, 329
Degradation
du polychlorure de vinyle preparé, 193
of polystyrene during extrusion, 879
of poly(vinyl chloride), 713, 1737
shear, of polymer solutions, 2145
thermal, of epoxide resin, 1961
thermal, of epoxide resins and polyimides, 345
thermal, of epoxy resins and polyimides, studied by chromatography, 205
Desalination
by reverse osmosis, poly(hydroxyethylene methacrylate) membranes for, 1339
reverse osmosis, cellulose acetate membranes developed for, 2559
Desalination membranes, polyacrylic, 285
Diallyl phthalate prepolymer, crosslinking estimation, 2117
Dialometer, for measuring compressibility of polymers, 1507
Dichroism, poly(ethylene terephthalate)-disperse dye system, 1069
Die swell, in molten polymers, rheological interpretation of, 1775
Diffusion
in silicone rubber, filler effects, 1019
of nonionic penetrants in polyamide, 1553
of organic liquids, pressure-induced, through polymer membranes, 2201
through grafted polyoxymethylene, of gases and water vapor, 1949
Diffusion coefficients, of liquids in polymer membranes, 523
Diffusivity, errors in, from permeation experiments by time-lag technique, 3145
Diphenyl ether and water, influence on polymerization of isoprene, 1807
Disperse dyeing, of polymers, solubility parameter concept applied, 837
Drag reduction, in dilute macromolecular solutions, 2097
Drag reduction and structural turbulence, in polyox solutions, 409
Elasticity, nonlinear, predictions from zero-shear parameters in Pao-Rouse Model, 3105
Elastomers
based on cellulose fibers, rheological properties, 929
mill behavior, 757
sealant performance predictions, 1143, 1159
chemoplastic, via radical polymerization, 1997
Electron microscopy, observation of crazes in polystyrene, 852
Electroplating, on crystalline polypropylene, 2441, 2457
Emulsion polymers, acid-containing, alkali thickening of, 897, 911
Epoxide resin, amine-cured, thermal degradation of, 1961

Epoxide resins and polyimides, thermal degradation studies, 345
Epoxy curing agents, imidazole catalysts as, 1615
Epoxy systems, chlorendic anhydride-cured, development of, 2671
Epoxy resins and polyimide, thermal degradation studies by chromatography, 205
ESR study, of intramolecular energy transfer in cellulose radiolysis, 1591
Ethylene oxide, copolymerization with propylene oxide, 1179
Extraction, repeated, for polymer fractionation, 1927
Fiber, synthetic, from nylon 3, 667
Fiber extrusion, in wet spinning, study of, 2973, 2999
Fiber formation and properties, of polyoxadiazoles, 225
Fiber nonuniformity, effect on mechanical behavior of poly(ethylene terephthalate), 2921
Fibers
  acrylic, internal flow distribution, 103
  hydrophilic, water's role in segmental mobility, 1394
Films, from corn starch mixtures, 1387
Flocculating agents, from graft copolymers of starch, 2601
Flow, of viscoelastic fluids in capillary tubes, 1277
Flow behavior, effect of heterogeneity on polyethylene, 3083
Fluids, liquid-film spread heights in calendering of Newtonian power law, 2771
Foam, polyimide, preparation, 1093
Foamed polymers, energy-absorbing characteristics, 1433
Foams
  brittle, load-compression behavior, 1263
  rigid plastic, Poisson ratio for, 1913
Formaldehyde, key to polymerization between THPOH and NH_4OH, 248
Fourier transforms, to solve Tung's equation, 1397
Fracture
  cohesive, time dependence on surface energy, 735
  ozone-induced, in rubber, micro-macro correlation, 3049
Fracture threshold, for adhesive interlayer, 1121
Free radicals, decay of, in PMMA, at high pressures, 2629
Free radical polymerization, multiple steady states, viscosity of, 2683
Gas permeability, of polymers, isobaric measurement of, 2839
Gas permeation, through modified polymer films, 2739
Gelation, by gamma radiation, of poly(ethylene oxide) solutions, 979
Gelled systems, maximum extent of reaction in, 599
Gel permeation and separation, reverse osmosis membranes as microporous barriers in, 1303
Glass-rubber transition behavior and compatibility, of polymer pairs, 73
Glassy epoxide polymer, mechanical properties of, 1901
Glassy polymers
  structural changes in, 2619
  yielding processes in, 1243
Graft polymerization. *See* polymerization, graft
Heat stability, of chemically crosslinked polyethylene, 65
Hydroxide–hydrazine system, as initiator of vinyl polymerization, 2927
Hydroxylation, by oxidizing plasmas of polymethylsiloxane surfaces, 2499
Hydroxypropyl cellulose, fractionated water-soluble, solution properties, 579
Imidazole catalysts, as epoxy curing agents, 1615
Imide-pyrrone copolymers, preparation and properties, 2385
Infrared determination, of composition of copolymers and terpolymers, 573
Infrared spectroscopy, autoxidation kinetics of atatic polypropylene by, 2537
Intrinsic viscosity method, one-point, for polyethylene and polypropylene, 2947
Ion-exchange membranes, studies of, 1847
Irradiated polymers, LET effects on chemical resistance, 1654
Isoprene, polymerization influenced by diphenyl ether and water, 1807
Isopropyl peroxydicarbonate, decomposition rate constant by EPR, 329
Light emission due to peeling, 2079
Liquid-film spread heights, in calendering Newtonian and power law fluids, 2771
Load-compression behavior, of brittle foams, 1263
Macromolecules, chromatographic separation, using porous adsorbents, 2723
Maxwell model, nonlinear, explaining initial fall in dynamic modulus, 2657
Melamines, monomeric etherified methylolated, characterization and synthesis of, 3021
Melt flow, rate-intrinsic viscosity correlation, for polypropylene, 1651
Melt flow properties, of polyethylene, effect of mixing, 2025
Melt spinning, of nylon 6, studies on, 1597
Membranes
  cellulose acetate, effect of casting conditions, in reverse osmosis, 723
  crosslinked poly(hydroxyethyl methacrylate), for reverse osmosis desalination, 1339
  high-flux, for ultrafiltration of macromolecular solutions, 1197
  ion-exchange, studies of, 1847
Methyl methacrylate, rate of emulsion polymerization dependence on soap concentration, 1377
Methyl methacrylate grafted cellulose, composition, 1049
Melting points, of crystallized Marlex polyethylene, 681
Moduli, Young and shear, for matrix resins, 1939

Modulus
sonic, in a porous system, 2412
tensile stress relaxation, calculations for stress and strain, 3139
Molecular weight, of grafted polystyrene unto cellulose, 807
Molecular weight distributions, of polystyrene and copolymers, 267
Morphology changes, in microcrystalline cellulose, 1390
Nitric acid, changes of polypropylene under attack by, 1833
Nitroaniline–sulfuric acid compositions, studies on, 2049
NMR, etude des polychlorures de vinyle polymérisés, 1291
Non-Newtonian flow, and steady-state shear compliance, 2697
Nylon 3, synthetic fiber from, 667
Nylon 6, melt spinning studies on, 1597
Nylon 6–10, thermal runaway of, 2825
Oligomers, sulfide, aminothiol polyalkylene, 1253
Organic liquids, effect of styrene grafting on diffusion and solubility, 537
Osmometer, block, for determining molecular weight distribution, 2279
Osmosis, reverse, porous cellulose acetate membranes, 1983
Oxide polymers, unsaturation in presence of antioxidants, 847
o-Xylene, oligomer of, heat stabilizer for isotactic polypropylene, 2553
Pao-Rouse Model, zero-shear parameters of, for predicting nonlinear viscosity and elasticity, 3105
Peel strength, of linear polyethylene, thermal history effects on, 1627
Permeation experiments, errors in diffusivity by time-lag technique, 3145
Phenol formaldehyde resins, thermal decomposition, 1083
Phenolic-carbon composite, decomposition kinetics, 747
Phenolic resin, adsorption of CO_2, 241
Phenolic resins, char yield affected by phenol/formaldehyde ratio, 175
Photodegradation, of nylon 66, 141
Photo-oxidation, of poly(vinyl chloride), investigated by stress relaxation, 611
Plastic, glassy, stress failure tests for, 1477
Plastic films suitable for optical studies, boat-casting technique preparation, 2399
Plastics, durability evaluated by photoelastic method, 2225
Poisson's ratio for rigid plastic foams, 1913
Poly(acrylic acid) and polyacrylamide, adiabatic compressibility of, 2937
Polyacrylic desalination membranes, 285
Polyacrylonitrile, thermal analysis of, 1795
Polyacrylonitrile solutions, association dependent on molecular volume nonsolvent, 505
Polyamide, diffusion of nionionic penetrants in, 1553
Polyamides
sorption of ions, 513
stress cracking of, 1799
Polybenzimidazole, sulfoalkylation of, 2019
Polybutadienes
hydrogenated, crystallinity present, 2416
rheo-optical properties, temperature and microstructure dependence of, 2481
Polycarbonate, ultraviolet activation spectrum of, 765
Polycarbonate fatigue, rheological interpretation of associated heat generation, 2377
Polycarbonanylene siloxane SiB-1 polymers, introduction of elastomeric behavior, 2525
Polychlorure de vinyle preparé, degradation du, 193
Polyester hot-melt adhesives, 685
Polyesterification, thin film, kinetics of, 1025
Poly(ethyl acrylate), glass-rubber transition behavior and compatibility, 73
Polyethylene
adhesion to metals, 2127
adhesive bonding of, 2171
chemically crosslinked, heat stability of, 65
chlorinated, and amines reaction of, 2763
crosslinking, mechanisms and kinetics of, 1825
enhancing the permeation characteristics of, 2431
high density, effect of heterogeneity on flow behavior, 3083
linear, melting of, crystallized from melt under shear stress, 2407
linear, peel strength affected by thermal history, 1627
Marlex, melting points of crystallized samples, 681
melt flow properties, effect of mixing on, 2025
one-point intrinsic viscosity method for, 2947
properties when crystallized in pressure capillary viscometer, 2305
swelling behavior studies, 1679
Poly(ethylene oxide) solutions, gelation by gamma radiation, 979
Polyethylene sulfide, thermal stabilization of, 115
Polyethylene terephthalate
adsorption and absorption, 989
effect of fiber nonuniformity on mechanical behavior, 2921
network formation in, 2357
Polyimide foam, preparation, 1093
Polymer, glassy epoxide, mechanical properties of, 1901
Polymer adhesion, thermodynamic aspects of, 1725
Polymer encapsulation of cotton, amine-catalyzed, 2707
Polymer fibers
friction of, 185
modified, gas permeation through, 2739

Polymer fractionation, by repeated extraction, 1927
Polymer fractionator, automatic endless-belt, design and application of, 2469
Polymeric diols, chain-extended, molecular structure of, 421
Polymeric foams, energy absorption in, 2239
Polymeric materials, effect of internal temperature rise on tensile behavior, 2797
Polymerization
anionic dispersion, of α-methylstyrene, 1227
emulsion, effect of monomer impurities, of chloroprene, 1103
emulsion, rate dependence on soap concentration, 1377
formaldehyde, key for THPOH and NH_4OH, 248
free-radical, multiple steady states, viscosity of, 2683
graft, unto cellulose fabric, 2731
of propylene oxide diethylberyllium-water, 3137
oxidative coupling, gel permeation chromatography calibration techniques, 373
radiation-initiated, of vinylidene fluoride, 1767
radical, treatments for kinetics of, 311
radical, yielding thermoplastic elastomers, 1997
termination-free, effect of multiple feeds on, 147
Polymerization rate, of vinyl acetate, inhibitory effect, 1907
Polymerization reactors, free-radical, control policies for, 3065
Polymer membranes
diffusion coefficients of liquids in, 523
for separating liquid mixtures, 2341
swollen, pressure-induced diffusion through, 2201
Polymer networks, interpenetrating, viscoelastic behavior of, 2815
Polymer properties, effects of aluminum ionomer surface layers on, 2569
Polymers
acid-containing emulsion, alkali thickening of, 897, 911
amorphous thermoplastic, brittle fracture of, 2249
compressibility measured by Dialometer, 1507
disperse dyeing of, solubility parameter concept applied, 837
dyed, sublimation of dispersed dyes from, 551, 1563
foamed, energy-absorbing characteristics, 1433
gas permeability, isobaric measurement of, 2839
glassy, crazing and creep in two, 2889
glassy, structural changes in, 2619
glassy, yielding processes in, 1243
inorganic, reactions of poly(P-phenylphosphonic imide), 1547
irradiated, chemical resistance affected by LET, 1654
measuring creep and stress relaxation, 2833
molten, rheological interpretation of die swell in, 1775
radiation-convertible, from Norbornenyl derivatives, 1659
relaxation phenomena in, thermodynamic description, 393
selenium condensation, synthesis of, 2319
steady-state flow, characterization by master curve method, 2643
steady-state flow curves of, seeking universal expression for, 2661
stress relaxation studies, 1381, 2065
Polymer solutions
diffusion coefficient concentration dependence and molecular weight distribution, 335
shear degradation of, 2145
Poly(methacrylate)
glass-rubber transition behavior and compatibility, 73
sintering of, 2069
Polymethylsiloxane surfaces, hydroxylation by oxidizing plasmas, 2499
Polyoxadiazoles, fiber formation and properties, 225
Polyox solutions, drag reduction and structural turbulence in, 409
Polyoxymethylene, grafted, diffusion of gases and water vapor through, 1949
Poly(oxypropylene triol), poly(oxypropylene diol) present in, determined by thin-layer chromatography, 1189
Polypentadienes, characterization of two with differing tacticity, 777
Poly(P-phenylphosphonic imide), reactions of, 1547
Polypropylene
atactic, kinetics of autoxidation by infrared spectroscopy, 2537
changes under nitric acid attack, 1833
crystalline, electroplating on, 2441, 2457
isotactic, heat stabilized by o-xylene, 2553
melt flow rate-1 intrinsic viscosity correlation, 1651
one-point intrinsic viscosity method for, 2947
tensile behavior of, 1871
Polypropylene film, biaxially oriented, structure of, 317
Polypropylene melt, dynamic viscosity of, 2753
Polypropylenes, isotactic, orientation on elongation at rupture, 2421
Polyquinoxalines, synthesis and mechanical properties as resins, 1037
Polystyrene
and butadiene-styrene copolymers, molecular weight distributions, 267
and poly(fluorinated styrenes), cryogenic relaxations of, 2635
degradation during extrusion, 879
grafted on cellulose, molecular weight, 807

high-impact, crazes in, 852
impact, mechanical properties, structure, and composition, 1781
viscosity-molecular weight relationship, 2015
Polytetrafluoroethylene, molten, rheological properties of, 79
Polytetrafluoroethylene surfaces, for vascular prostheses, 257
Polyurethanes, with long fluorinated side chains, 699
Polyurethane foams, analysis of, 35, 45
Poly(vinyl acetate), sorption on cellulose, 1577, 2581
Poly(vinyl chloride)
degradation of, 713, 1737
molecular weight distribution determined by osmometer, 2279
photo-oxidation investigated by stress relaxation, 611
plasticized, antioxidant effects in, 53
plasticized, weathering of, 2107
properties of, 161
solubility, 1531, 2263
solubility characteristics of, 127
thermal analysis of, 355
Poly(vinyl chloride) fractions, thermal analysis, 2965
Poly(vinyl fluoride), modified, solventless processing and properties, 461
Propylene oxide, copolymerization with ethylene oxide, 1179
Propylene oxide diethyl beryllium–water, polymerization of, 3137
Prosthesis, vascular, from polytetra fluoroethylene surfaces, 257
PVC. *See* poly(vinyl chloride)
Pyridinium bromide perbromide, unsaturation in ethylene propylene terpolymers and butyl rubber, 1827
Pyrolysis
of cellulose, 1701
of cellulose, kinetic behavior during, 244
Pyrrone polymers, electrical characteristics affected by high energy radiation, 1361
Radiation, high energy, effect on electrical characteristics of pyrrone polymers, 361
Radiation-convertible polymers, from norborenyl derivatives, 1659
Radiolysis, γ, of zeocarb 225 cation-exchange resins, 2167
Relaxation phenomena, in polymers, thermodynamic description, 393
Resins
high-temperature matrix, Young and shear moduli for, 1939
phenol formaldehyde, thermal decomposition, 1083
Reverse osmosis
casting condition effect on performance of cellulose acetate membranes, 723
porous cellulose acetate membranes, 1983
Reverse osmosis desalination, poly(hydroxyethyl methacrylate) membranes for, 1339
Reverse osmosis membranes, cellulose acetate, as microporous barriers, 1303
Rheological properties
of elastomers based on cellulose fibers, 929
of molten polytetrafluoroethylene, 79
Rheo-optical properties of polybutadiene, temperature and microstructure of, 2481
Rubber, natural
high temperature strength and reinforcement, 2183
ozone-induced fracture in, micro-macro correlation, 3049
silicone, filler effects on diffusion, 1019
silicone, morphology and structure of silica agglomerates in, 2785
Rubbers
solution polymerized, with superior breakdown properties, 1421
styrene-butadiene copolymer and polybutadiene blends, characterization, 1
Rubber vulcanizates, abrasion resistance of prestressed and stressed, 11
Sealant performance, of elastomers, 1143, 1159
Shear compliance, steady-state, and non-Newtonian flow, 2697
Side chains, fluorinated, of polyurethanes, 699
Silica agglomerates, in silicone rubber, morphology and structure, 2785
Sintering of poly(methyl methacrylate), 2069
Sodium lignosulfonate, molecular weight, 1115
Solubility characteristics, of poly(vinyl chloride), 127
Solution properties, of fractionated hydroxypropylcellulose, 579
Solvents, hydrogen-bonding, classified by sonic velocity measurements, 1755
Sonic velocity measurements, for classifying hydrogen-bonding solvents, 1755
Sorption, by polyamides, of ions, 513
Spectroscopy, proton magnetic resonance, synthesis and characterization of methylolated melamines, 3021
Spin drying, studies of, 1879
Steady-state flow curves of polymers, seeking a universal expression for, 2669
Steady-state flow polymers, characterized by master curve method, 2643
Stress birefringence
of vulcanizates, 1183
study of styrene-butadiene block copolymer, 799
Stress cracking, of polyamides, 1799
Stress failure tests, for glassy plastic, 1477
Stress relaxation
investigation of photo-oxidation of poly(vinyl chloride), 611
of natural rubber vulcanizates, 1127
studies of polymers, 1381, 2065
Stress relaxation and creep, measured in polymers, 2833
Stress relaxation modulus, tensile, calculations for stress and strain, 3139
Styrene, copolymerization of, 1491

Styrene-butadiene block copolymer, stress-birefringence study, 1799
Styrene-butadiene copolymer rubbers, sulfur-cured, and polybutadiene blends, characterization, 1
Styrene grafting, effect on diffusion and solubility of organic liquids, 537
Sublimation studies, disperse dye out of dyed polymers, 551, 1563
Sulfoalkylation, of a polybenzimidazole, 2019
Sulfuric acid-nitroaniline compositions, studies on, 2049
Surface energy, in cohesive fracture, time dependence, 735
Surface tension, copolymer characterization by, 999
Swelling behavior of polyethylene, 1679
Swelling of cotton
  effects of crosslinking, 655
  in cadoxen solutions, 633
Swollen cotton fibers, physical and fine structure properties, 2905
Tensile behavior
  of polymeric materials, internal temperature rise effect on, 2797
  of polypropylene, 1871
Tensile strain effect, on use of WLF equation, 953
Thermal analysis
  of cellulose, hemicellulose, and lignin, 1323
  of compounded poly(vinyl chloride), 355
  of polyacrylonitrile, 1795
  of poly(vinyl chloride) fractions, 2965
Thermal runaway, of nylon 6–10, 2825
Thermal stabilization, of polyethylene sulfide, 115
Thin film polyesterification, kinetics of, 1025
Time-dependent flow, of quasi-linear viscoelastic fluids, 1639
Tung's axial dispersion equation, applied to gel permeation chromatography, 1519
Tung's equation, solution by finite Fourier transforms, 1397
Ultra filtration, of macromolecular solutions with high-flux membranes, 1197
Ultraviolet absorbers, 967
Ultraviolet activation spectrum, of polycarbonate, 765
Vinyl acetate, polymerization rate of, inhibitory effect, 1907
Vinyl compounds, reacting with cotton cellulose, 441
Vinyl monomers, copolymerization reactions with cellulose, radiation-initiated, 3093
Vinyle polymérisés, polychlorures des, NMR etude, 1291
Vinylidene fluoride, radiation initiated polymerization of, 1767
Vinyl polymerization, initiated by hydroxide–hydrazine system, 2927
Viscoelastic behavior, of interpenetrating polymer networks, 2815
Viscoelastic fluids
  flow comparisons, in capillary tuber, 1277
  quasi-linear, time-dependent flow of, 1639
  unsteady flow of, 17
Viscosimeter, capillary, automatic recording, 373
Viscosity
  dynamic, of polypropylene melt, 2753
  nonlinear, predictions from zero-shear parameters in Pao-Rouse Model, 3105
Viscosity method, two-capillary, monitored by analytical balance, 453
Vulcanizates
  natural rubber, creep and stress relaxation, 1127
  physical properties affected by mixing states, 1007
  stress birefringence of, 1183
  structural characterization, 1409
Water, role in segmental mobility of hydrophilic fibers, 1394
Water vapor, adsorbed and absorbed by polyethylene terephthalate, 989
Wet spinning, study of fiber extrusion in, 2973, 2999
Wool, copolymer formation of butadiene in, 3033
Zeocarb 225 cation-exchange resins, γ-radiolysis of, 2167